

REMARKS

Claims 33-37 are allowed.

Claim Amendments

Claim 4 has been incorporated into independent claim 1. Claim 4 has therefore been canceled, and the dependency of claim 5 has been changed to claim 1.

Claim 17 has been incorporated into independent claim 16. Claim 17 has therefore been canceled, and the dependency of claim 18 has been changed to claim 16. Also, claim 23 has been canceled, and the dependency of claim 24 has been changed to claim 20.

Claims 29 and 30 have been incorporated into independent claim 28. Claims 29 and 30 have been canceled.

Claim 31 has been rewritten in independent form to include the limitations of original claims 28 and 32. Claim 32 has been canceled.

Prior Art Rejections

Claims 1-3, 12, 15, 16, 26, 28 and 31 were rejected as being anticipated by U.S. Patent No. 5,925,053 to Hadlock. The Office Action also rejected original claims 4-5, 17-19, 30 and 32 under 103(a) as being obvious over Hadlock in view of U.S. Patent No. 5,736,132 to Juergensen. The Office Action states that Juergensen uses chondroitinase ABC to promote adhesion of tissue. The Office Action also states that Hadlock teaches that tissue adherence is desirable to promote cell growth. Together, the Office Action contends that these teachings render Applicants' invention of claims 4-5, 17-19, 30 and 32 obvious. The Applicants respectfully disagree.

It is worth noting that in order to establish a *prima facie* case of obviousness,

three basic criteria must be met. "First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations." M.P.E.P. § 2143 In addition, "there are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art." M.P.E.P. § 2143.01 *citing In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998).

It is respectfully submitted that a *prima facie* case of obviousness cannot be established for amended independent claims 1, 16, 28 and 31 (which now include the limitations of original claims 4, 17, 30 and 32, respectively) because there is no suggestion or motivation, either in Hadlock or Juergensen, or in the knowledge generally available to one of ordinary skill in the art, to combine the teachings of Hadlock and Juergensen. In this regard, the nature of the problem to be solved and the teachings of Hadlock and Juergensen are quite different , and the knowledge of persons of ordinary skill in the art exhibited in Hadlock and Juergensen is unrelated.

First, with respect to the nature of the problem to be solved in Hadlock, Hadlock is directed to providing a prosthesis with "a nerve guidance channel which provides increased surface area for Schwann cell adherence" (see column 1, lines 37-39). Hadlock also indicates at column 1, lines 56-59 that Schwann cell adherence is increased with greater surface area. Thus, Hadlock does not teach that tissue

adherence is desirable to promote cell growth, as the Office Action asserts. Hadlock does not suggest any problem with tissue adherence.

Regarding the nature of the problem to be solved in Juergensen, this reference teaches that adhesion between tissue surfaces can be promoted by a composition containing tissue transglutaminase (see column 5, lines 15-25). At column 7, lines 10-23, it is noted that chondroitinase ABC can be used to pretreat tissue surfaces to increase the amount of substrate for available for the tissue transglutaminase in the composition. Thus, Juergensen merely identifies (and apparently solves) the problem of insufficient substrate for tissue transglutaminase.

Therefore, the nature of the problem to be solved and the teachings of Hadlock and Juergensen are quite different, and the knowledge of persons of ordinary skill in the art exhibited in Hadlock and Juergensen is unrelated. Hadlock never mentions any problems of tissue adherence or that tissue transglutaminase may be used to solve tissue adherence problems. In contrast, Juergensen teaches that adhesion between tissue surfaces can be promoted by a composition containing tissue transglutaminase and that chondroitinase ABC can be used to pretreat tissue surfaces to increase the amount of substrate for available for the tissue transglutaminase. Without any teaching in Hadlock regarding the problems of tissue adherence or that tissue transglutaminase may be used to solve tissue adherence problems, there would be no motivation to incorporate the teaching of Juergensen teaches that adhesion between tissue surfaces can be promoted by a composition containing tissue transglutaminase and that chondroitinase ABC can be used to pretreat tissue surfaces to increase the amount of substrate for available for the tissue transglutaminase.

For these reasons, amended independent claims 1, 16, 28 and 31, which now include the limitations of original claims 4, 17, 30 and 32, respectively, are patentable over Hadlock and Juergensen. Accordingly, claims 2-3 and 5-15, which depend from amended independent claim 1, and claims 18-22 and 24-27, which depend from amended independent claim 16, are also patentable over Hadlock and Juergensen.

Conclusion

It is submitted that the application is in condition for allowance. Favorable reconsideration is respectfully requested.

Having added 1 independent claim, a fee is required. Please charge the fee for the one extra independent claim (small entity - \$100) to deposit account 17-0055. If any other fees are needed, please charge them to deposit account 17-0055.

Respectfully submitted,

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